PART A – COVER PAGE

STATE WATER RESOURCES CONTROL BOARD
SFY 2002 Costa-Machado Water Act of 2000
CALFED Watershed Program

Application No. 336 (combined with application 151)

PROJECT TITLE: Upper Pit River Watershed Enhancement & Protection Project combined with Alturas Storm Water Management Plan

Project Region	Central Valley	Indicate RWQCB #:	5
Multi-regional Project		Indicate RWQCB #s:	
Statewide Project			

PROJECT DIRECTOR (one name only) (Ms., Mr., Dr.): Mr. Clifford N. Harvey (PRINT) 3 June 2002 (DATE)

LEAD APPLICANT OR ORGANIZATION: Central Modoc Resource Conservation District

TYPE OF AGENCY:

Municipality		Local Agency	**X**	*Nonprofit (non-landowner)	
Nonprofit (landowner)		Local Public Agency			

STREET ADDRESS: 804 West 12th St.
CITY: Alturas Zip Code: 96101
P.O. BOX: Zip Code:
COUNTY Modoc
STATE: CA

PHONE NO.: 530-233-8872 FAX NO.: 530-233-8869

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PROJECT TYPE: Implementation and Assessment

LEGISLATIVE INFORMATION

Senate District 01 Assembly District 03

United States Congressional District 02

CALFED, RWQCB, or SWRCB STAFF CONTACTED REGARDING THIS PROPOSAL:

Contact:	Dennis Heiman	Contact:	Dennis Bowker
Phone No.:	(530) 224-4851	Phone No.:	
Dates contacted:	1/26/02, 5/30/02; 6/5/02 various other	Dates contacted:	5/30/02

PRIMARY COOPERATING ENTITIES:

Entity Name: City of Alturas
Role/Contribution to Project: Co-sponsor, Alturas SWMP
Contact Person: Scott Kessler Phone No.: (530) 233-6406
E-mail address: planning@hdo.net

Entity Name: Pit River Tribe
Role/Contribution to Project: Co-sponsor, X-L Ranch Project
Contact Person: Michelle Berditshevsky Phone No.: (530) 335-5062
E-mail address: ajuma@c-zone.net

WATERBODY/WATERSHED (Include Catalog Number in Section 18 of the ARD): Upper Pit River Catalog Number 18020002

GPS COORDINATES FOR PROJECT LOCATION, IF AVAILABLE: Approximate centroid for project area is at City of Alturas; UTM coordinates: 705000 mE, 4596000 mN

FISCAL SUMMARY:

Proposition 13 Funds Requested	$ 585,580.00
Other Project Funds	$ 144,000.00
Total Project Budget	$ 729,580.00

CERTIFICATION

Please read before signing.

I certify under penalty of perjury that the information I have entered on this application is true and complete to the best of my knowledge and that I am entitled to submit the application on behalf of the applicant (if the applicant is an entity/organization). I further understand that any false, incomplete, or incorrect statements may result in the disqualification of this application. By signing this application, I waive any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent provided in this RFP.

Applicant Signature Date

Richard S. Mackey, President, Central Modoc Resource Conservation District

Printed Name of Applicant

PART B – PROJECT NARRATIVE

Introduction

A programmatic approach to a variety of problems identified in the Upper Pit River Watershed is proposed by a group of stakeholders in the watershed. The City of Alturas (City), the Pit River Tribal Council (PRTC), and various local landowners, in cooperation with the Central Modoc Resource Conservation District (CMRCD), propose a concerted effort to address these management problems in a manner than builds and supports local collaboration for watershed management. These stakeholders maintain a cooperative relationship through the Pit River Watershed Alliance, which involves stakeholders from all reaches of the Upper Pit River.

The watershed in which the program is located serves as one of the primary headwaters to the Sacramento River. The Pit River is currently listed as an impaired water body for nutrients, organic enrichment, low dissolved oxygen and temperature on the Regional Water Quality Control Board's 303(d) list. It is also known to have problems with erosion, channel downcutting, and sediment discharge, a suspected cause of excess turbidity. These conditions on the Pit River inhibit the ability of the water body to achieve beneficial uses, with adverse effects both locally and throughout the Bay-Delta ecosystem.

The proposed management program will contribute to solutions for significant ecological and social issues that affect watershed condition. Sub-projects in the program will address:

1. Selected stream restoration opportunities that represent typical problems in the watershed, for the purpose of developing and demonstrating management solutions applicable to similar reaches elsewhere locally and regionally.
2. The first phase in a storm water treatment and flood management project that will provide data and an action plan to address drainage issues for the City and the adjacent flood plains that make up the confluence of the South and North Forks of the Pit River around Alturas. This plan will become a pivotal contribution to the Watershed Assessment currently underway for the Pit River, by covering a key urban component missing from the Scope of Work of that assessment.
3. Continued watershed education and outreach efforts in the community, with a new and expanded focus on the urban watershed issues found in Alturas and on inclusion of the county's Native American community & landholdings in watershed planning and management.

The various elements of this program contribute to a larger cooperative effort by many stakeholders throughout the watershed. The discreet sub-projects, each standing alone as valid management needs, fit into this larger effort. Together, the sub-projects build on each other to fill significant, and currently unmet, watershed-wide management needs.

The data and project documentation generated through all of these sub-projects will be made available to local interests and other entities through public meetings, distribution of deliverables, and posting of pertinent information and data on local and statewide websites (e.g., ICE and CERES). All geographic data will be recorded in Geographic Information Systems (GIS) that are compatible with commonly accepted data management protocols. Monitoring data will be collected under accepted Central Valley Regional Water Quality Control Board (RWQCB) and Department of Fish & Game methodologies. Standard reporting protocols to the CALFED Watershed Program will also help insure that data is shared widely among watershed managers.

All projects will be supported by, and contribute to, the Upper Pit River Watershed Enhancement and Protection Project (UPRWEPP) Monitoring Program. Primary field work will be accomplished by citizen volunteers (e.g. participating landowners, residents and students) and CMRCD and subconsultant (i.e. City

and other) staff. This monitoring effort will be consistent with statewide standards and be coordinated with the current RWQCB water quality monitoring program for the Pit River. It will also coordinate with the Pit River Watershed Alliance (PRWA) through active participation in the PRWA Assessment and Monitoring Committee.

Labor force for all proposed on-the-ground projects will be part of an existing labor pool currently under development by CMRCD for other projects. This labor pool targets local at-risk youth and young adults, with special emphasis on outreach to the Tribal community. This work force is under development locally because of the absence of state/federal sponsored work programs such as the California Conservation Corps, Youth Conservation Corps, and Americorps. Work force for projects on the X-L Ranch will be drawn from the tribal community and will be managed by the Tribe under sub-contract to CMRCD.

Relationship to CALFED and SWRCB Goals

The program is designed to fulfill CALFED Watershed Program, and RWQCB priorities. The program will be focused on development of community capacity for assessment and effective management of the watershed through planning and implementation of watershed assessment and management plans. The program will focus on the CALFED Watershed Program Principles of Participation: it will be community based, coordinate at multiple levels, from individuals to federal agencies, provide for ongoing implementation, include monitoring protocols, and increase learning and awareness.

Benefits of the proposed projects will be compounded by UPRWEPP's substantial education and outreach programs in the schools, in the field, and at the River Center (136 West Henderson Street, Alturas). The recent growth in participation in UPRWEPP lays the groundwork for long-term, locally sponsored watershed stewardship, which will ultimately benefit all downstream beneficial uses as well as the local community.

The various proposed projects will result in improved management of wetlands and streams in the headwaters of the Pit River, with a quantifiable number of acres and river-miles placed under management consistent with statewide water quality goals. This will in turn address various CALFED goals: improvement of long-term water quality and quantity for local and downstream users will be attained through improved wetland, floodplain, and riparian function.

Through cooperative relationships with diverse stakeholders, these projects will address known problems in the context of the California NPS Program's TAC recommendations cited in the *Plan for the California's Non-Point Source Pollution Control Program* (p. 7). That plan's Mitigation Measures for Agriculture and for Wetlands, Riparian Areas, & Vegetated Treatment Systems will be employed.

In addition, these projects will serve to fulfill current goals of Targeted Nonpoint Source Implementation Projects for the RWQCB, primarily:

R5-2: Implement BMPs to mitigate/reduce NPS pollution
R5-14: Projects to improve or restore natural functioning condition of stream channels

In addition, the proposed projects will contribute to:

R5-7: Projects which lead to implementation of CA Rangeland Water Quality Management Plan (CRWQMP)
R5-8: Citizen monitoring

Through on-the-ground projects such as those proposed here, a strong base of community capacity and expertise will be developed. When more comprehensive local watershed management plans emerge as a result of the current watershed assessment that is underway, this capacity will allow the timely facilitation of more comprehensive management efforts.

Most CMRCD sponsored projects emphasize work on private land, where significant landowner contributions are routinely expected and received. We feel that this approach improves community support and ensures long-term maintenance of project sites.

In addition to this private land emphasis, a close partnership with the X-L Ranch Community of the Pit River Tribe (a Federally-recognized Tribe) will be facilitated. It is expected that this partnership will help build capacity for the Tribal watershed management program while addressing key watershed issues in the North Fork of the Pit River.

Description of Sub-Projects within the Program

A total of 5 individual sub-projects are packaged in this proposal:
1. Alturas Storm Water Management Project (ASWMP)
2. North Fork Pit / X-L Ranch Riparian Restoration Project
3. Pit River Fencing Initiative
4. Dry Creek Basin / Weber & MacPherson Fencing Project
5. Pit River – John & Sally Clark Riparian & Wetland Enhancement Project

SUB-PROJECT 1: ALTURAS STROM WATER MANAGEMENT PROJECT (ASWMP)

The watershed that serves the City of Alturas has for decades been subject to diversion, filling of wetlands, engineered drainage, and other problems typical of urban development. Although Alturas is a small town, the problems associated with these conditions are chronic and growing at the local level. Stormwater currently ponds in various locations in the City or haphazardly drains to the Pit River. Exacerbating these problems, the reach of the North Fork Pit River that runs through the City is a soil cement-lined channel with little riparian habitat and negligible habitat or floodplain function. Installation of this channelization in the early 1960s initiated a cycle of channel downcutting and widening for miles upstream that continues today. Treatment of those extensive management problems requires understanding and treatment of the reach that initiated these ongoing events. At present, no storm water planning mechanism is in place, resulting in Non-point Source (NPS) impacts to the receiving waters as well as management problems for the City related to poor drainage.

To begin addressing these conditions, a Storm Water Management Project for the City's incorporated boundaries and the surrounding watershed is proposed. Funding is sought for a three-year community-based project as the first phase in this three-phase storm water control and watershed management program for the City. The ASWMP will allow the City to begin to address long-term stormwater management issues at a watershed level, in a small community where no funding mechanisms currently exist for such an effort.

Management and restoration efforts to date for the Upper Pit River have effectively focused on the rural area of the watershed, but have not included the City as part of its scope to date. The proposed plan will therefore dovetail with these pre-existing analyses and planning efforts by providing critical data and management approaches for one of the few urban areas within this primarily rural watershed. This project will contribute to and be consistent with the Pit River Watershed Assessment currently under development by the Pit River Watershed Alliance, but will focus on the particular problems created by storm water runoff in Alturas.

Phases Two and Three of the ASWMP will in turn implement recommendations developed in Phase One, and monitor and utilize adaptive management in an iterative process that will address the City's evolving needs over time. In the past, acquisition of funding for implementation of stormwater projects in the City have been stymied by a lack of a clearly articulated approach. Unfortunately, funds have not been as readily available for development of such an approach. Funding under this grant program therefore will provide the seed money necessary to access funds for these later phases.

The ASWMP, when implemented, is expected to reduce chronic flooding within the City and reduce and/or eliminate NPS impacts, both locally and downstream in Sacramento River watershed. Stormwater discharge from the City, not currently monitored, is thought to contribute to these problems. Citizen monitoring of basic parameters will be implemented through the outreach efforts addressed in the Education Task below. The proposed Plan would identify those water quality parameters that require more intensive or technical approaches.

Another significant outcome of this proposed planning effort will be the delivery of baseline information necessary for planning the management or restoration of the channelized reach of the North Fork Pit River that flows through Alturas. The anticipated outcomes of the first phase of this project will be establishment of baseline conditions in the project area and development of runoff management strategies for the City. Alternative management strategies that may be developed include various opportunities for future restoration of wetland, stream and swale function in and around the City.

Significant RWQCB Watershed Management Initiative (WMI) priorities addressed by the ASWMP project include development and implementation of programs to control NPS pollution, regulation of stormwater discharges from urban areas, and development of monitoring programs to support a comprehensive assessment of the condition of water in the Region. The project will also support WMI priorities specific to the Pit River, such as providing assistance to develop a coordinated watershed plan for the Pit River, conducting assessments to identify problems and issues, compiling existing information, identifying data gaps and areas of potential watershed improvement, and providing the basis for development of a watershed management strategy. The ultimate outcome of the project is expected to support long-term goals and objectives of the CALFED Program, including improvements to ecosystem quality and water quality through local collaboration and leadership.

Stakeholder involvement will be an enduring theme throughout the ASWMP. As discussed below in *Task 4, Perform Stakeholder Outreach and Community Involvement*, the entire project will maximize stakeholder involvement in the planning process and hence enhance prospects for success through popular support. At the outset of the project, all potentially interested parties, including local residents, watershed groups, and regulatory agencies, will be contacted and invited to participate in stakeholder meetings at key project milestones. Stakeholder meetings will provide an opportunity to provide input and technical review regarding various goals, objectives, and action plans, and will be scheduled around key milestones or deliverables. Other stakeholder activities will include water quality monitoring, wetlands enhancement, and education/outreach within the larger community. Community capacity will be built though an important partnership between PRWA and the City.

The data gathered in the monitoring component of this project will provide crucial information to local decision makers regarding baseline conditions of flooding and water quality in the City. This information will be utilized in a locally-directed, community based decision making process to develop both short- and long-term management strategies through development of the SWMP.

Restoration Implementation Projects

All proposed stream restoration projects emphasize restoration principles described in standard watershed restoration texts and manuals (Rosgen, 1996; FISRWG, 1999; Calif. Salmonid Stream Habitat Restoration Manual, CDFG, 1998; Biodraw 2.0, SalixAEC, 1999; etc.). Predominantly native, local revegetation material will be used. All projects are designed with extensive input from the UPRWEPP Technical Advisory Committee, comprised of professional land managers and resource scientists from a wide range of disciplines. Details of individual project components are outlined in turn.

SUB-PROJECT 2: THE NORTH FORK PIT / X-L RANCH RIPARIAN RESTORATION PROJECT

This project will address bank erosion and livestock management along approximately ½ mile of river. Of primary concern to the X-L community is bank erosion which threatens the integrity of a Tribal cemetery. A combination of bank stabilization and channel realignment techniques will be used to address this reach. New riparian fencing and off-site water will be installed to better manage livestock. Tribal members and staff will work in coordination with consultants and CMRCD staff to cooperatively address management concerns in this reach. It is expected that the development and implementation process of this project will also serve as a forum for community capacity building, so that tribal management of watershed resources will be improved.

A Tribal Watershed Coordinator will be funded in part under this proposal to facilitate implementation of this project, and tribal members will comprise the primary work force. Matching funds will be employed to facilitate watershed and conservation management planning for the X-L Ranch, and will also contribute directly to proposed stream restoration actions.

Anticipated outcomes will include a planned, designed, and completed stream restoration project for the X-L reach of the North Fork Pit. Identification and treatment of critical erosive features in the project reach will be accomplished in consultation with qualified specialists with experience in treating similar problems in our region.

CMRCD Staff will work closely with Tribal Staff to provide technical and administrative assistance for project design and implementation. It is expected that the cooperation required to complete the proposed project will lead to continued collaboration for future projects. Most labor for this project will be provided by tribal members, providing much-needed employment and training in restoration methods. Immediate supervision will be provided by Tribal staff, with technical assistance from CMRCD staff. It is hoped that these new Field Technicians will be available for help on other watershed restoration projects that may arise in the future.

SUB-PROJECT 3: THE PIT RIVER FENCING INITIATIVE

The Pit River Fencing Initiative will provide incentive to landowners to agree to establish and maintain riparian management fencing along the Pit River and its primary tributaries. Many reaches of the Pit River and its tributaries need only a bit of rest to show dramatic improvement in a few years. Landowner participation would be a primary selection factor for reaches to be treated under this program. Through encouraging this first step in riparian management, it is expected that a broader base of community involvement will lead to increased public acceptance of land management practices that provide improved water quality.

Landowner recruitment would be accomplished through the public outreach of ongoing CMRCD Education and UPRWEPP Programs. Project management would be provided by the CMRCD Watershed Coordinator. Emphasis will be on making the Initiative a vehicle for increased participation in the California Rangeland Water Quality Management Plan. Materials provided under this grant would be matched with labor for fence installation for approximately 5 miles of river corridor, (i.e., 10 miles of fencing, 5 miles of each bank). Materials would be provided subject to landowner agreement to install, manage and maintain riparian corridors for vegetative recovery. Labor may be provided by landowners or, in some cases, by inmate crews provided by the California Department of Corrections under supervision of California Department of Forestry and Fire Protection Captains.

Written agreements with participating landowners would specify appropriate construction & maintenance specifications, livestock utilization standards, and time frames for installation. Livestock use prescriptions will vary from site to site: some may require complete and permanent exclusion; some may require a 3-5 year rest period followed by managed grazing; some sites may be in good condition to begin with, and may require no initial rest period. All sites will be subject to thorough site assessment consistent with CRWQMP standards to determine the most appropriate management approach.

Observation and certification by RCD staff would ensure quality control and out-year maintenance.

SUB-PROJECT 4: THE DRY CREEK BASIN FENCE PROJECT

The Dry Creek Basin Fence Project will improve management of a 6000' elevation valley that feeds into Parker Creek, a tributary of the North Fork Pit River. The streams, meadows and wetlands in this valley exhibit a downward trend in range and riparian condition. Livestock utilization as a result of drift from adjacent USFS grazing allotments, has contributed to stressed riparian vegetation and weakened bank structure. The wetland and flood-plain function of this valley is threatened, along with a population of native Redband rainbow trout. High quality riparian habitats for aquatic, terrestrial, and avian life are possible here, if the site is allowed to express its full potential. Failure to protect this valley will result in continued degradation of the meadows, with associated habitat loss and adverse water quality effects.

Approximately 5 miles of fencing in this challenging terrain are proposed to allow for improved grazing management of this key headwater valley that encompasses about 400 acres of meadow land. The proposed fence will be placed on the slopes above the meadows to protect the meadows along with the riparian zones, and to reduce pressure on the fence from livestock pressing to reach immediately visible greener pastures.

High snow loads pose engineering challenges. A section of the proposed fence line must cross a snow hazard area. A drop fence or similar design will be installed to accomodate this topographic feature. The remoteness of the valley and the rocky soil greatly increase the expected cost of the proposed fencing, primarily by increasing labor and management costs.

Strong landowner commitment to improvement of riparian and wetland conditions is expressed by neighbors Warren Weber & Chris MacPherson, who will be cooperating with this CMRCD Fencing Project.

In-kind participation from Modoc National Forest is expected in the form of operational support, design assistance, and environmental documentation.

Protection of this meadow is deemed important in that it still has many desirable characteristics, including fair riparian and floodplain function. In order to protect these functions, reversal of negative trends through grazing management is necessary.

SUB-PROJECT 5: PIT RIVER – JOHN & SALLY CLARK RIPARIAN & WETLAND ENHANCEMENT PROJECT

UPRWEPP maintains a strategy of developing projects in a variety of reaches on the Pit that represent variations in irrigation management. The John & Sally Clark Property on the Pit River offers opportunities to develop riparian revegetation techniques applicable to those parts of the Pit River that are subject to moderate seasonal inundation as a result of irrigation impoundment. The proposed treatment reach has not been previously channelized, although some previous downcutting is apparent. Response to this

downcutting has been creation of approximately 300 linear feet of eroding riverbank that continues to be active. This active erosive feature threatens the existence of the adjacent wetland that lies in the now partly abandoned flood plain.

This bank will be subject to excavation followed by intensive planting with native woody riparian species.

Adjacent wetlands will be enhanced to provide additional late season surface water and larger pond edge. Existing wetland features will be maintained and expanded into a pond of approx. 1 acre using conventional excavation equipment. Desirable wetland vegetation will be salvaged and replaced around the perimeter of the expanded pond area to provide immediate revegetation of this sensitive site. This in turn will facilitate the new riparian revegetation at the redesigned river bank by raising the ground water level at the site. Approximately 1/4 mile of new fencing will be installed to create an enhanced and protected 20-acre wetland/riparian meadow that can be managed separately from adjacent uplands.

PART C – PROPOSED SCOPE OF WORK

1. BACKGROUND AND GOALS

As mentioned in Part B, the proposed program consists of multiple sub-projects. Project need, goals, and anticipated outcomes are each discussed in turn.

Alturas SWMP

The Alturas SWMP is needed to address a clear planning gap in stormwater and floodplain management within the City. In addition, improved coordination between the City and other local stakeholders, including citizens, watershed groups, and government agencies, is needed to comprehensively address watershed issues in the Pit River. Finally, baseline data regarding this urban area is critically needed for the current Pit River Watershed Assessment. This sub-project is driven by three goals: (1) elimination of chronic flooding within the City through monitoring and management actions; (2) reduction or elimination of NPS pollution discharges to the Pit River; and (3) achieving these goals using a watershed approach and strong community education, support and involvement. These goals will be addressed by achieving the objectives of the project: performing a baseline assessment, community outreach, and development of storm water management actions, as the first step in this ongoing stormwater management project. Anticipated outcomes will be deliverables and positive performance relative to the measures of success, discussed below.

Restoration Implementation Projects

The various elements of the RCD sponsored projects contribute to a larger cooperative effort by many stakeholders throughout the watershed. The discreet sub-projects, each standing alone as valid management needs, fit into this larger effort. Together, the sub-projects build on each other to fill significant, and currently unmet, watershed-wide management needs.

Watershed management problems in the Upper Pit basin may be classified into various types. The watershed projects proposed here address representative examples of these types and can serve as examples for replication at similar sites throughout the watershed. By gaining expertise in a variety of ecotypes with a wide range of landowers, CMRCD seeks to achieve the goal of improved watershed health through local leadership.

High elevation meadow/wetland complexes subject to grazing problems at Dry Creek Basin. Goals include preservation of approximately 400 acres of wet meadow and associated fishery and wildlife habitats. The desired outcome is an upward trend in habitat conditions as a result of project implementation.

Pit River reaches subject to a moderate degree of seasonal inundation pose challenges to revegetation. Goals for the Pit River - Clark site include restoration of approximately 300 linear feet of eroding river bank and enhancement of adjacent wetlands. Contributions to remediation of water quality stessors will be made though reduced sediment loading and improved riparian/wetland function at the site. Expertise gained at this class of site will benefit similar reaches throughout the watershed.

Goals for management of the X-L North Fork Pit River Reach, including the confluence of Parker, Gleason, & Thoms Creeks, include reversal of bank erosion trends that contribute water quality stressors to the system and threaten cultural resources. By securing improved management of this key reach, groundwork will be laid for associated actions up the tributaries and down the North Fork itself. The cooperative approach to this project by CMRCD and the X-L Ranch community offers opportunities for Tribal members to gain employment and training as they work to improve management of tribal lands.

The Pit River Fencing Initiative will offer effective and needed riparian fencing assistance to landowners as a prompt to encourage participation in CRWQMP. In this way, immediate water quality benefits can be realized, extensive monitoring at a range of sites can be conducted, and ground work for site specific planning and prioritization of future projects can be laid.

A strong commitment to pre- and post-project documentation and monitoring is associated with data collection through the CMRCD monitoring plan.

Relationship to CALFED and Prop 13 Project Criteria

The program will be carried out in a cooperative environment utilizing RCD, City, Tribal, and contractor expertise. All of the groups involved in the program have a track record of successful completion of similar projects in the past, and are poised to implement the program upon contract execution. The Central Modoc RCD has managed numerous grants for planning and implementation projects, and currently administers an active and successful education, outreach, and stakeholder development program. Past and current CMRCD projects have been funded by EPA 319h ($167,000 & $129,000), Californinia Prop. 204 ($500,000), and the National Fish and Wildlife Foundation ($27,000). CMRCD also participates in various cooperative grants with other stakeholders, including CALFED funded Pit River Watershed Alliance Watershed Assessment, and various small NRCS EQIP grants. The City offers planning expertise and an ability to develop stormwater plans in the larger context of a municipality. Its contractor, ESA, possesses an extensive background in natural resource evaluations, feasibility analyses, and regulatory compliance, and has successfully completed CALFED-funded projects in the past, including the American Canyon wetlands restoration project. Tribes and other landowners offer on-the-ground expertise that will be critical to successful implementation of restoration efforts.

The projects to be implemented as part of this program will be developed with a minimum time horizon of 20 years, or have a reasonable expectation of providing ecosystem benefits for 20 years or more. The program, as demonstrated by the multi-agency collaborative approach and support of stakeholders, enjoys strong community support that will help ensure long-term operation and maintenance through both internal and external funding and in-kind services. Project costs were developed utilizing experience with past projects of this nature and scope, and are considered reasonable for completion of this technically feasible proposed work program.

Techniques to be used in the program represent adaptation of established methods to a local situation, providing novel management approaches by demonstrating the benefits of these techniques for use elsewhere in the watershed and similar environments. The program will achieve multiple CALFED objectives, such as water quality and ecosystem quality, in a fashion that integrates CALFED program commitments through support for local leadership, utilization of substantive stakeholder consultation, and collaboration with Tribal interests, while at the same time supporting environmental justice by funding a program located in a rural, economically disadvantaged community. Benefits to the CALFED program are expected to be clear and measurable, and will multiply as community capacity in the area develops, and restoration efforts and future phases of the ASWMP positively influence watershed condition. The project will be based on important action items and information needs identified during the UPRWEPP, a science-based watershed assessment currently underway.

2. PROPOSED WORK TO BE PERFORMED

Task 4. Perform Stakeholder Outreach and Community Involvement

At program initiation, regulatory agencies, community groups, and individuals with potential interest in all of the sub-projects will be identified and invited to participate, through the established education and outreach programs of CMRCD. This will include notification of all residents of the City. A stakeholder group will then be organized and convened, and ongoing meetings will be held to coincide with key project deadlines and deliverables. Stakeholder activities will include scoping and review, water quality monitoring, wetlands enhancement, and education/outreach within the larger community. Sub-committees will be formed as appropriate. An evaluation program for success of the stakeholder effort will be developed and implemented. In addition, a website will be jointly developed and maintained by CMRCD and Environmental Science Associates (ESA) that will describe the project, provide updates on current events and announce upcoming meetings, and allow users to view and/or download reports and GIS data.
Deliverables: List of interested stakeholders, completion of meetings, completion of the outreach evaluation plan, other deliverables as determined by the stakeholder group, and success evaluations.
Performance Measures: Total number of stakeholders; percentage attendance at meetings; number of trained monitors; community surveys to measure watershed awareness; other measures to be determined by stakeholder group.

Task 5. Complete Phase One of the Alturas SWMP

The project will be performed by the RCD and through subcontract to the City, Environmental Science Associates (ESA), and other subcontracts to be awarded on an as-needed basis. In addition to completing Tasks 1-4 as they apply to this sub-project, the following four sub-tasks will be completed:

Task 5.1 Assess Baseline Conditions and Establish Desired Endpoints
A baseline conditions assessment will be completed to identify current hydrology and water quality issues in the City. Methods will mirror UPRWEPP methods to ensure consistency, ease of data sharing, and ongoing coordination. This effort will involve several subtasks:

- A survey of existing information, including maps, aerial photographs, water quantity and quality data as available, and an inventory of existing infrastructure. Data gaps will be identified and addressed. Testable hypotheses regarding the system will be developed.
- A comprehensive hydrologic study for the project area, to be carried out by a certified engineer.
- A system assessment developed to test the hypotheses. A citizen monitoring program will be created and implemented under supervision from the applicant and the State Water Resources Control Board Clean Water Team to monitor water quality parameters, visual criteria, flora and fauna, and other factors as appropriate. Data will be collected weekly for one year to assess seasonal changes in discharge. While this duration of monitoring will not be sufficient to establish long-term trends, it is anticipated to provide adequate information for development of management strategies. Focus will be given to identification of sources of flooding, unauthorized discharges, and other significant sources of NPS pollution.

In conjunction with this assessment, desired endpoints for the watershed will be developed by the stakeholder group.
Deliverables: Geographic Information Systems (GIS) database; hydrologic study; water quality assessment plan; water quality assessment report; mission document describing desired endpoints for the system.
Performance Measures: Successful completion of deliverables; timeliness of completion of deliverables

Task 5.2 Analyze Constraints and Alternatives
Given the baseline conditions and desired endpoints, strategies for reducing flooding and NPS pollution, as well as methods for achieving other goals, will be explored. Alternate management actions will be developed through professional assessments and scoping meetings with the stakeholder group. These will be designed to cover the full range of options, from engineered solutions and non-structural approaches (Best Management Practices, or BMPs) to education and monitoring of NPS sources. A preference will be given to source reduction as opposed to treatment, and solutions will consider the entire watershed. Retention of storm water, natural treatment at existing wetlands, and redirection of storm flows to the local wastewater treatment plant will be explored as potential options. Alternatives will be weighted using a multi-attribute scale, and a report will be prepared summarizing the options, rankings, and identify the preferred management measures. Evaluations will consider a 20-year time horizon in providing watershed benefits, and will consider the economic benefits provided by the various alternatives.
Deliverables: Constraints report.
Performance Measures: Successful completion of deliverables; timeliness of completion of deliverables

Task 5.3 Develop Draft and Final Storm Water Management Actions
Based on the preferred management measures, a document outlining storm water management actions will be prepared that summarizes baseline conditions, incorporates information from the constraints analysis, and expands upon the preferred alternatives. Infrastructure and BMPs will be located and sized. The document will outline specific steps to achieve the goals of the program, a schedule for implementation, and a monitoring program to evaluate program success over time. The document will be prepared to be consistent with relevant threatened and endangered species recovery plans. Maintenance and monitoring programs will have a time horizon of at least ten years, and will implement adaptive management practices to incorporate new information over time. The process of adaptive management will allow a large degree of flexibility in the working agenda while maintaining a discreet focus on an anticipated result. The document will include performance measures for the implementation and monitoring phases of the project. Both the draft and final document will be reviewed by the stakeholder group.
Deliverables: Draft Actions document; Final Actions document
Performance Measures: Successful completion of deliverables; timeliness of completion of deliverables

Task 6. Complete Restoration Implementation Projects

Task 6.1 Complete North Fork Pit / X-L Ranch Riparian Restoration Project
Through intensive community outreach at the X-L, a ranch conservation management plan and site assessment will be developed with special focus on riparian and wetland needs. This plan will be consistent with CRWQMP, and will provide a framework for out-year monitoring & maintenance of proposed restoration projects. Site assessment will be consistent with CMRCD, state and regional monitoring plans. Alternatives will be developed and considered for treatment of identified problems, to include the cemetery reach. Biotechnical treatments and minor channel redesign along with fencing and other livestock management tools are expected to be the primary components. Ancillary sites near the cemetery reach may also be subject to restoration work.
Deliverables: Approved Management Plan, Site Assessment and Design Specs; Installed Cemetery Reach project; installed fencing as prescribed; Installed ancillary stream stabilizations sites as prescribed.
Performance Measures: Delivery of CRWQMP compliant plans and specs; Completed Cemetery Reach Project; Completed ancillary projects.

Task 6.2 Complete Pit River Fencing Initiative
Approximately 10 miles of riparian fencing (5 stream miles) will be installed on the Pit River and Tribs, with focus on new recruitment of numerous landowners to CRWQMP participation. Landowner involvement in pre-project monitoring, site assessment, and conservation planning will be assisted through CMRCD staff coordination.
Deliverables: 10 UC approved Ranch Plans under CRWQMP. 10 miles of riparian fencing installed under CCRWQMP participation.
Performance Measures: Miles of fencing installed under CRWQMP; Number of completed UC approved Ranch Plan under CRWQMP

Task 6.3 Complete Dry Creek Basin / Weber & MacPherson Fencing Project
Approximately 5 miles of high-altitude fencing will be installed. Pre-project monitoring of conditions will be followed by out-year monitoring to determine effects of proposed actions. Monitoring will be conducted by landowners and CMRCD staff. Meadows to be fenced will be managed according to CRWQMP.
Deliverables: Approx. 5 miles meadow fencing. Pre-project monitoring.
Performance Measures: Miles of installed fences meeting USFS or specifications.

Task 6.4 Complete Pit River – John & Sally Clark Riparian & Wetland Enhancement Project
Approximately 300 linear feet of eroding stream bank subject to moderate seasonal inundation will be subject to intensive biotechnical treatment. Adjacent wetland will be enhanced through enlarging open water features. Fencing will be installed to enclose the new approx 10 acre site. Pre- and post-project monitoring will be conducted landowners and CMRCD staff to document project implementation and effects. Site will be managed according to CRWQMP.
Deliverables: Installed riparian restoration project for approx. 300 linear feet of Pit River banks. Installed wetland features; Pre- and post-project monitoring documentation.
Performance Measures: Feet of stabilized and revegetated river bank site; Competion of an enlarged one-acre pond site with appropriate vegetation; Installed fencing to NRCS or equivalent specifications.

3. TARGET COMPLETION DATES

Task No. Deliverables	Target Completion Dates
Task 1: Project Administration	
1.2 Quarterly/Monthly Progress Reports	Quarterly/monthly, by 10th of month
1.5 Contract Summary Form	Month 3
1.6 List of subcontracted tasks, Good Faith Effort documents, quarterly/monthly Utilization Reports	Month 2
1.7 Subcontractor Documentation	Month 2
1.8 Expenditure/Invoice Projections	Quarterly
1.9 Project Survey Form	Month 36
Task 2: CEQA/NEPA Documents and Permits, if applicable	

2.1 Alturas SWMP CEQA/NEPA Documentation	Month 36
2.2 Alturas SWMP Permits	Month 36
2.3 PRFI CEQA and Permits	Month 12
2.4 X-L Project CEQA/NEPA and permits	Month 12
2.5 Dry Creek/Weber-MacPherson CEQA/NEPA and permits	Month 12
2.6 Pit Riv./Clark CEQA and permits	Month 12
Task 3: Quality Assurance Project Plan	Month 6
Task 4: Perform Community Education & Stakeholder Outreach	
4a List of Interested Stakeholders	Month 1
4b Stakeholder Meetings	Month 3; other meetings will coincide with deliverables below, or occur quarterly, whichever is more frequent.
4c Stakeholder/Outreach Evaluation Plan	Month 9
4d Success Evaluations	Month 30
4e Website	Month 3; updated as appropriate (at least quarterly)
Task 5: Complete Phase One of the Alturas SWMP	
5.1a GIS database	Month 6 for existing information; Month 20 for information collected as part of project
5.1b Hydrologic Study	Month 8
5.1c Water Quality Assessment Plan	Month 6
5.1d Draft Water Quality Assessment Report	Month 19
5.1e Final Water Quality Assessment Report	Month 20
5.1f Desired Endpoints (Mission Statement)	Month 6
5.2a Draft Constraints Report	Month 24
5.2b Final Constraints Report	Month 25
5.3a Draft Actions document	Month 31
5.3b Final Actions document	Month 32
Task 6: Complete Restoration Implementation Projects	
6.1.1 PRFI recruitment and planning	Month 1-24
6.1.2 PRFI installation	Month 6-36
6.2.1 X-L project planning	Month 1-12
6.2.2 X-L project implementation	Month 12-36
6.3.1 Dry Creek Planning	Month 1-2
6.3.2 Dry Creek Implementation	Month 2-16
6.4.1 Pit / Clark Planning	Month 1-12
6.4.2 Pit / Clark Implementation	Month 12-36

PART D1 - BUDGET SUMMARY SHEET – TASK BUDGET BREAKDOWN

	Proposition 13 Funds	Other Project Funds	Total Budget
1. Task 1 – Project Administration	$ 58,800	$ 18,000	$ 76,800
Supporting Task 5	*3,000*		
Supporting Task 6.1	*55,800*		
Supporting Tasks 6.2-6.4	*0*		
2. Task 2 – CEQA/NEPA Documents and Permits	51,500	0	51,500
Supporting Task 5	*27,000*		
Supporting Task 6.1	*7,000*		
Supporting Tasks 6.2-6.4	*17,500*		
3. Task 3 – Quality Assurance Project Plan	5,000	0	5,000
Supporting Task 5	*5,000*		
Supporting Task 6.1	*0*		
Supporting Tasks 6.2-6.4	*0*		
4. Task 4 – Perform Community Outreach and Stakeholder Involvement	24,500	12,000	36,500
Supporting Task 5	*15,500*		
Supporting Task 6.1	*4,000*		
Supporting Tasks 6.2-6.4	*5,000*		
5. Task 5 – Complete Phase One of the Alturas SWMP	131,500	0	131,500
6. Task 6 – Complete Restoration Implementation Projects	299,280	114,000	413,280
Supporting Task 6.1	*131,280*		
Supporting Tasks 6.2-6.4	*168,000*		
7. Task 7 – Draft and Final Reports	15,000	0	15,000
Supporting Task 5	*5,000*		
Supporting Task 6.1	*4,000*		
Supporting Tasks 6.2-6.4	*6,000*		
TOTAL BUDGET	$ 585,580	$ 144,000	$ 729,580

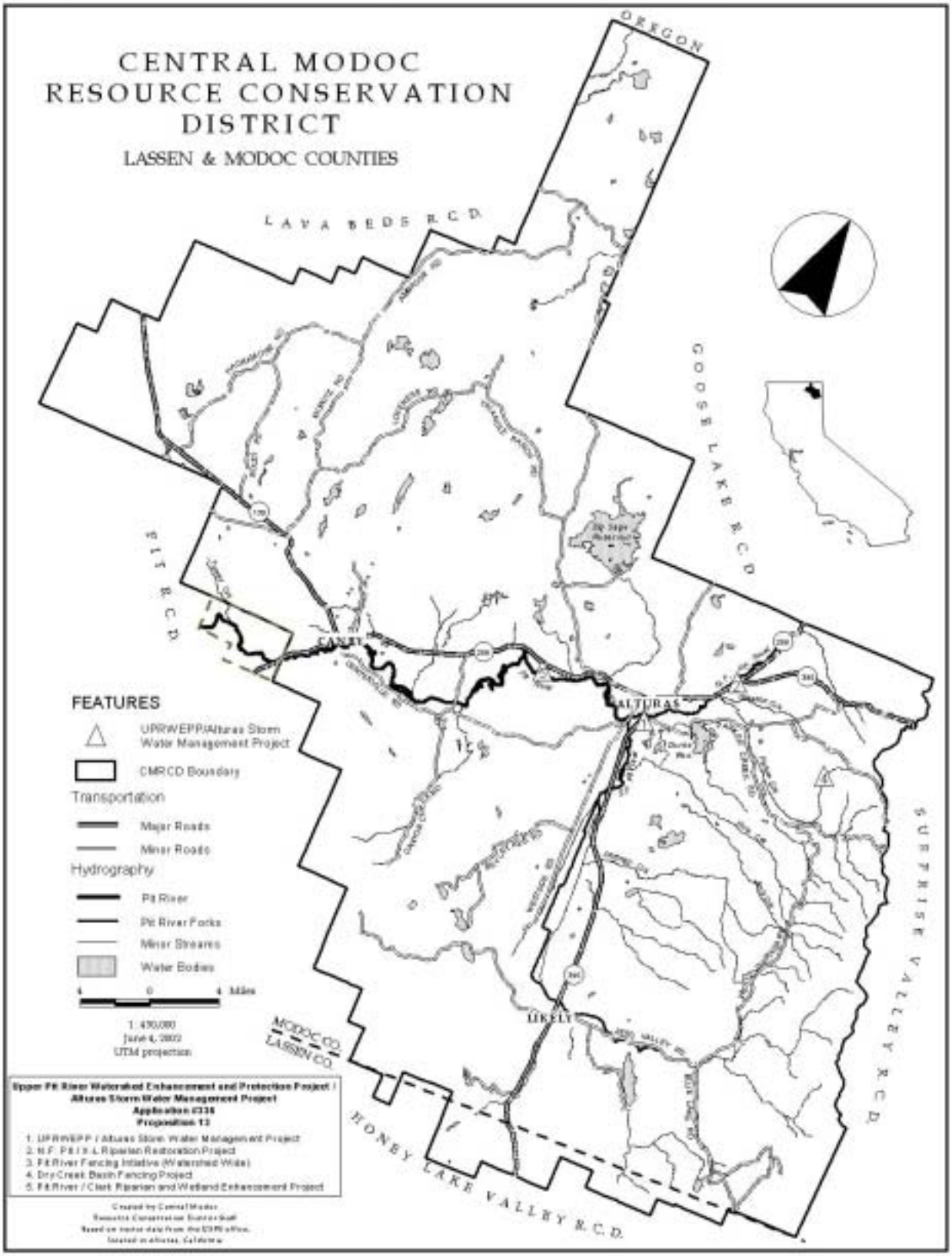
PART D2 - BUDGET SUMMARY SHEET – LINE ITEM Budget

	Proposition 13 Funds	Other Project Funds	Total Budget
1. Personnel Services	$ 108,300	$ 12,000	$ 120,300
2. Operating Expenses	6,500	18,000	24,000
3. Property Acquisitions	0	0	0
a. Equipment			
b. Furniture			
c. Portable assets			
d. Electronic data software/hardware			
e. Processing equipment			
f. Miscellaneous			
4. Professional and Consultant Services			
a. ASWMP (City/ESA)	166,000	0	166,000
b. Pit X-L (Tribe)	108,280	52,000	160,280
5. Contract Laboratory Services	0	0	0
6. Construction Expenses	178,500	62,000	240,500
7. General Overhead	18,000	0	18,000
8. TOTAL BUDGET	$ 585,580	$ 144,000	$ 729,580

9. Describe the source and nature of the matching funds.

- EPA 319h Grant for CMRCD education program
- Tribal EPA funding for tribal watershed coordination
- Extensive landowner in-kind contributions, such as labor, materials, project management assistance, etc.
- In-kind contributions from NRCS (Alturas Field Office) and USFS (Modoc National Forest), such as vehicles, equipment, etc.
- In-kind contributions from Modoc County Department of Education to CMRCD education program for office space

PART E – PROJECT MAP



PART F – ENVIRONMENTAL INFORMATION FORM

ENVIRONMENTAL INFORMATION FORM

Please indicate what permits or other approvals may be required for the activities contained in your proposal and which have already been obtained. Please check all that apply.

LOCAL PERMITS AND APPROVALS	Needed?	Obtained?
Conditional use permit		
Variance		
Subdivision Map Act		
Grading permit		
General plan or Local Coastal Program amendment		
Specific plan approval		
Rezone		
Williamson Act Contract cancellation		
Local Coastal Development Permit		
Other		
STATE PERMITS AND APPROVALS	Needed?	Obtained?
Scientific collecting permit	Yes	No
CESA compliance: 2081		
CESA compliance: NCCP		
1601/03	Yes	No
CWA 401 certification	Yes	No
Coastal development permit		
Reclamation Board approval		
Notification of DPC or BCDC		
Other		

FEDERAL PERMITS AND APPROVALS	Needed?	Obtained?
ESA compliance Section 7 consultation		
ESA compliance Section 10 permit		
Rivers and Harbors Act	Yes	No
CWA 404	Yes	No
Other		
PERMISSION TO ACCESS PROPERTY		
Permission to access city, county or other local agency land. If "yes," indicate the name of the agency: City of Alturas	Yes	No
Permission to access State land. If "yes," indicate the name of the agency:__		
Permission to access federal land. If "yes," indicate the name of the agency: US Forest Service	Yes	No
Permission to access private land. If "yes," indicate the name of the landowner (if multiple landowners, indicate how many individuals will be involved and what percentage have already granted permission: Pit X-L Tribe	Yes	Yes

PART G – LAND USE QUESTIONNAIRE

PART - LAND USE QUESTIONNAIRE

1. Do the actions in the proposal involve construction or physical changes in the land use? Yes_xx_ No____

If you answered "yes" to # 1, describe what actions will occur on the land involved in the proposal: Fencing, riparian restoration, and wetland enhancement.

2. How many acres of land will be subject to a land use change under the proposal? __none____

3. What is the current land use of the area subject to a land use change under the proposal? What is the current zoning and general plan designation(s) for the property? Does the current land use involve agricultural production?

   a) Current land use __agriculture_____
   b) Current zoning __agriculture_____
   c) Current general plan designation__agriculture_____
   d) Does current use involve agricultural production? Yes_xx___ No____

4. Is the land subject to a land use change in the proposal currently under a Williamson Act contract? Yes____ No __xx___

5. What is the proposed land use of the area subject to a land use change under the proposal? N/a

6. Will the applicant acquire any land under the proposal, either in fee (purchase) or through a conservation easement? Yes_____ No__xx___

   a) If you answered "yes" to 6, describe the number of acres that will be acquired and whether the acquisition will be of fee title or a conservation easement:
   b) Total number of acres to be acquired under proposal _____
   c) Number of acres to be acquired in fee _____
   d) Number of acres to be subject to conservation easement _____

7. For all lands subject to a land use change under the proposal, describe what entity or organization will manage the property and provide operations and maintenance services. N/a

8. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal? Yes__xx___ No_____

9. For land acquisitions (fee title or easements), will existing water rights be acquired? Yes_____ No_____

10. Does the applicant propose any modifications to the water right or change in the delivery of the water? Yes_____ No__xx__

    If "yes" to 10, please describe the modifications or changes.

PART H – SUPPORTING DOCUMENTATION

CENTRAL MODOC RESOURCE CONSERVATION DISTRICT

The Central Modoc Resource Conservation District (CMRCD) is dedicated to the wise use and management of our natural resources through programs that increase awareness and promotion of conservation. CMRCD coordinates technical assistance and provides educational and informational materials to encourage good stewardship of our resources. Programs are dependent upon community need and available funding. We work with the agricultural community, government agencies, businesses, schools and the general public.

Opportunities for Farmers & Ranchers

CMRCD works with individual farmers/ranchers and other private landowners to implement beneficial conservation practices, for problems ranging from water quality to soil erosion. Assistance may include technical advice, cost sharing and conservation planning. CMRCD can provide for agricultural land improvement through administration of grant funds from the Upper Pit River Watershed Enhancement & Protection Project.

RCD Staff

Clifford Harvey
Watershed Coordinator Clifford Harvey holds a B.S. in Zoology and an M.S. in Natural Resources from Humboldt State University. He has over 20 years experience in Natural Resources Management and has served for over three years as Watershed Coordinator with CMRCD.

Paula Fields
Paula Fields holds a B.S. in Biological Sciences from the University of California at Davis. Her experience includes service as Project Coordinator for Western Shasta RCD and she has currently served for 9 months as Education Coordinator for CMRCD.

ENVIRONMENTAL SCIENCE ASSOCIATES

Environmental Science Associates (ESA) is a multidisciplinary environmental consulting and planning firm with a staff of more than 140 professionals in all pertinent resource disciplines. Since 1969 when the company was founded, ESA has prepared more than 5,000 environmental documents for managing land and water resources and for compliance with the National Environmental Policy Act (NEPA), state environmental protection laws such as the California Environmental Quality Act (CEQA), Wild and Scenic Rivers Act, Clean Water Act, Endangered Species Act, National Historic Preservation Act, Clean Air Act, Resource Conservation and Recovery Act, and other federal and state environmental requirements.

ESA's services encompass watershed characterization and assessment, development of watershed management plans, preparation of environmental impact assessment, permitting, environmental monitoring, environmental restoration, and public involvement. ESA's success is grounded in our ability to efficiently and thoroughly plan, design, and carry out complex projects and environmental documentation within relatively short time frames. Practical problem solving, good planning and solid management are at the heart of ESA's services. ESA's outstanding reputation for quality of service is founded on our:

- In-depth understanding of the purpose for watershed plans - we balance environmental, economic, and policy interests with community values and needs.

- Thirty years of interdisciplinary planning experience- we produce technically excellent, economically viable, and legally defensible management plans and documents.

- Problem-solving abilities – we identify potential issues, negotiate solutions between parties and with state and federal resource agencies, and ultimately provide practical and cost effective solutions and plans for long term implementation.

- Excellent agency relationships- we have comprehensive knowledge of federal, state, and local issues, policies, and regulations that govern watershed and environmental assessments.

- Collaborative team approach – we work interactively with clients to become an extension of the existing staff resources.

- Multilevel, well-documented involvement process aimed at increasing public confidence in decision-making – we focus on developing common objectives, resolving conflicts, and applying a full range of successful strategies for obtaining community input.

- Ability to design and carry out complex field surveys, baseline investigations, modeling, mapping, and data analyses- we have interdisciplinary field service teams ready to identify and fill data gaps and produce useful maps and work products that create understanding and support decision making.

- Stable, enduring staff - ESA watershed and land management staff has many years of experience and most have been with the company for several years or decades.

ESA'S WATERSHED MANAGEMENT APPROACH AND PHILOSOPHY

Our approach to watershed and land management is to focus on the interrelationships between the physical, economic, and policy environment in the community, and to create integrated management plans that are cost effective and can be implemented. Watershed plans should define future management of public lands,

encourage better stewardship of private lands, and address historical problems that are resulting in negative impacts to water quality or biological resources.

This country's water courses and open spaces figure prominently in the lives of its citizens - providing economic returns and jobs, serving as valuable habitat, providing contact with natural and cultural landscapes and wilderness areas, and arenas for a multitude of recreational pursuits. Watershed and land managers, whether operating on public or private property, strive to perform several often-competing roles: create jobs, provide a return on investment, serve as a hands-on land manager and stewards, act as guardian of diverse cultural and recreational resources, and protect the public or private assets. Watershed and land management planning should begin by viewing these elements in concert and as complements to one another - not as mutually incompatible goals. Drawing on our diverse professional staff and focusing on client needs, ESA brings a multidisciplinary approach to resolve environmental issues and devise practical solutions for both large-scale and small implementation plans that are economically feasible and improve the environment.

Practical Approach
We seek a practical approach that involves the community in defining problems, evaluating alternatives, and developing action plans. The goal of the management plans is to make best use of the available public and private resources, ensure the viability of the local economy, and the sustainability of terrestrial and aquatic ecosystems. The best science must be applied and solutions must be practical land cost effective.

Respect for Unique Environments
Every watershed project has unique environmental, land use and policy conditions. ESA recognizes that watershed management actions can very greatly in approach and scope between basin, and each project has unique requirements and objectives that result from special circumstances and interests within each watershed.

Support Voluntary, Cooperative Approach over New Regulation
Public sentiment and policies are increasingly targeted to improving and protecting water quality, instream resources and riparian areas. If voluntary, cooperative efforts by private property owners are to effectively protect these resources, the process must include a wide range of stakeholders, acknowledge diverse perspectives, resolve conflicts, and prioritize actions. To be successful and to forestall more strict regulatory intervention, the stakeholders must be committed to the process, and be willing to mobilize both public and private resources.

Public Participation and Local Economies
Public involvement in the decision making process is key to effective watershed plan development and the success of voluntary, cooperative approaches to solving water quality and resource protection problems. Local interests are driven by local economies. Regulatory interests are driven by national and statewide perspectives. This often results in a clash of values that must be resolved through public and agency participation to breakdown the siege mentatility and overcome the "us versus them" circumstances. ESA has established experts with a proven record in technical analysis and regulatory compliance, and has a history of bringing the interest together in a facilitated process to adopt technically credible and legally defensible approaches.

Letter of Support from the Pit River Watershed Alliance, submitted under separate cover.